December 1964

EMO

NATIONAL DIGEST

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EMERGENCY MEASURES ORGANIZATION

EMO NATIONAL DIGEST

Vol. 4 • No. 6
December, 1964

Published by
The Emergency Measures Organization, Ottawa, Ont.

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The EMO NATIONAL DIGEST publishes six editions annually to provide current information on a broad range of subjects dealing with civil emergency planning. The magazine is published in English and French and may be obtained by writing to the Emergency Measures Organization, Daly Bldg., Ottawa.

In addition to publishing articles which reflect Canadian Government policy the Digest may also publish articles by private individuals on subjects of current interest to the emergency measures programme. The views of these contributors are not necessarily subscribed to by the Federal Government.

Director: P. A. FAGUY *Editor:* A. M. STIRTON

ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1964

ADVANCED TREATMENT CENTRE IN EMERGENCY PLANNING

by

J. EARLE MATTHEWS, *Phm.B., Pharmaceutical Consultant, Emergency Health Services, Department of National Health and Welfare*

THE ROLE OF the Advanced Treatment Centre is to provide second echelon medical care, i.e. to sustain the serious casualties until they can receive full resuscitative and surgical care at the third echelon, which is hospital treatment.

In Canada, we have equipment for 630 Advanced Treatment Centres in the stockpile and if we set them up in good time we can expect the survival rates to be near the high rate of the Korean war rather than the low rate of the Crimean war.

In order to distinguish those serious casualties in need of urgent care from the minor casualties and from the serious not in need of urgent care, it is necessary to introduce a system of sorting at the Advanced Treatment Centre. The Advanced Treatment Centre has two main functions (1) to sort casualties into priorities for treatment and for evacuation (2) to provide emergency care for those in desperate need.

Description of Unit

The Advanced Treatment Centre Operational Unit is designed to sort 1,000 injured. The health supplies and equipment in this unit are sufficient to treat 500 seriously injured and to hold up to 200 of them if necessary. The unit has been assembled consistent with the functional flow pattern of the different areas which are: Reception, Resuscitation, Major Treatment, Minor Treatment, Evacuation, Holding and Supplies.

Preparation of Supplies

All the supplies in an Advanced Treatment Centre are prepared for long-term storage either by the manufacturer or by the packaging unit operated by Emergency Health Services. This is an essential feature of a stockpile programme fi the supplies are to be maintained in a usuable condition no matter how long they are stored. The date that the items have been packaged is placed on each box.

J. Earle Matthews

All the supplies in an Advanced Treatment Centre are assembled in the unit on a functional basis so that it can start to operate without delay and with a minimum of issues from the supplies area. The many and various items for each of the above-mentioned areas are packaged in a wire-bound box, colour coded for the area and identified by the catalogue number. The identifying mark for an Advanced Treatment Centre is a triangle on two of the upper corners of each box, whereas, the bulk items such as stretchers, blankets, burn dressings, shell dressings, shell dressings, dextran, plaster of paris bandages, etc. remain in ventors' cantons and are not colour-coded because they are common to the Emergency Hospital or to the Emergency Clinic; also, they are only identified by catalogue number and nomenclature.

A wirebound box is used for the packaging of the miscellaneous items because it is light, can be opened by the hands and because there will not be any tools available in a forward area. There is no box in the Advanced Treatment Centre that exceeds a weight of 75 lbs. and each wirebound box has a rope-carrying handle fixed to each end. Therefore, each box is readily portable.

Issue of Unit

An Advanced Treatment Centre Operational Unit can be issued to a province in peacetime. Most Provincial Ministers of Health have signed agreements with the Minister of National Health and Welfare for the release of Advanced Treatment Centres for storage in their respective provinces in peacetime. The most important feature of the agreement is the condition that the province must organize a minimum staff for each unit.

This is a programme established by Federal Emergency Health Services Division to pre-position as many Advanced Treatment Centres as possible with the user units. This is an attempt to prepare a province for the immediate post-disaster period and to make a province self-supporting for thirty days.

Storage of Unit

The conditions of storage of an Advanced Treatment Centre Operational Unit when released to a province have been laid down in Emergency Health Services Technical Bulletin No. 1 and Emergency Health Services Advisory Bulletin No. 2. An Advanced Treatment Centre may be stored in a room 9 feet long × 8 feet wide which is approximately 72 square feet. The unit should not be stacked any higher than 6 to 8 feet because it will have to be manhandled.

Control of Advanced Treatment Centre

Before an Advanced Treatment Centre can be released to a province for storage in peacetime, that province must have on its Provincial Emergency Health Services staff a pharmacist who has been designated as the Health Supplies Officer to organize their Emergency Health Supplies Service. In a similar manner, a pharmacist must be named as a member of the personnel outlined in the agreement. Therefore, all Advanced Treatment Centres released to a province will be under the supervision and control of pharmacists.

Use of Advanced Treatment Centre

Since each province has been organized into zones, the Federal Emergency Health Services have agreed to release one Casualty Collecting Unit and one Advanced Treatment Centre to support each zone. These two units will be stored in close proximity to the zone headquarters and must have the personnel trained to use them both in peacetime and wartime.

The Casualty Collecting Unit and the Advanced Treatment Centre located at zone headquarters may be released to support a large natural disaster if prior permission or authority has been given by the Federal Government for such use, but may be used to support a national emergency without prior authority of Central Control Site.

However, the Advanced Treatment Centre issued to support re-entry operations will not have a Casualty Collecting Unit attached to it because the Casualty Collecting Units required for the re-entry operation have been released to the Department of National Defence to support the first-aid elements in the Mobile Survival Columns.

Logistics

An Advanced Treatment Centre consists of 82 pieces. There are 65 bulk items which are packed in vendors' cartons. The remaining 18 pieces are in wire-bound boxes and these boxes are properly identified for the area in which they will be used. The 82 pieces weigh approximately 4,176 lbs and occupy 338 cu. ft. The weight and cubic capacity of each box is marked on it.

Shipping

RAILWAY FREIGHT CAR
Size: 40½ ft. long × 9 ft. 2 in. wide by 10 ft. high
Maximum cubic capacity—3,712
Maximum weight capacity—44,000 lbs.
Number of Advanced Treatment Centres per freight car—9

TRACTOR TRAILER OR LARGE TRAILER VAN
Size—40 ft. long × 8 ft. wide × 9 ft. high
Maximum cubic feet capacity—2,700
Maximum weight capacity—23,000 lbs.
Number of Advanced Treatment Centres per van—6

TRUCK 60 CWT. (3 TONS)
The number of Advanced Treatment Centres per this type of vehicle is 1¼.

All bulk items and packaged units of an Advanced Treatment Centre will be ordered by catalogue number, nomenclature and quantity, whereas, the shipping data will be number of pieces, total cubic feet and total weight.

All this data will be available from the manual "Technical Information of an Advanced Treatment Centre for Health Supplies Officers". This manual will be issued with each unit and at all levels of control.

Siting

It is estimated that approximately 6,300 square feet are required to set-up an Advanced Treatment Centre plus forty square feet per patient if they are to be held. During the training period a number of buildings should have been inspected so that one or more alternate sites could be indicated to provincial planners. Since each area of an Advanced Treatment Centre has been given a colour code for rapid distribution at site of location, the Health Supplies Officer should be very familiar with these locations and know the layout of the unit. He should be in a position to indicate by colour which room or area has been assigned to each area of the unit, such as brown for Reception, green for Resuscitation, red for Major Treatment, yellow for Minor Treatment, white for Evacuation, orange for Holding and black for Supplies.

When notified, the pharmacist assigned to this Unit as the Health Supplies Officer would proceed to the storage area with a number of men, load his vehicle with an Advanced Treatment Centre and proceed to the building that has been designated for use by this Advanced Treatment Centre. On arrival at the building, he would instruct the men to proceed to distribute the supplies in accordance with the colour coding. The Health Supplies Officer would have obtained all the items from local resources that are mentioned in the Operational Manual such as propane gas, flashlight batteries, etc.

As the staff of a Unit arrive, they would proceed to open up the boxes and prepare the supplies and equipment for use. In the same manner, the pharmacist would proceed to organize the supplies area so that he could make rapid issue to the different areas as the demands are received. In the beginning, he would be required to issue narcotics and antibiotics from the special box in the supplies area.

If this Unit was being used for natural disaster, then it would have a Casualty Collecting Unit along with it. Since there are no narcotics in a Casualty Collecting Unit then the pharmacist might issue to each first-aid worker along with his first-aid haversack, a box of morphine syrettes from Advanced Treatment Centre supplies.

One of the main duties of the Health Supplies Officer will be to maintain a steady flow of supplies to the treatment area and to report his replenishment

needs to the Health Supplies Officers at the municipal level. It is estimated that the duration of time that this unit will operate is about 48 hours. However, if it is required to hold patients beyond that time, the Health Supplies Officers will have to take immediate action to obtain all supplies to maintain the unit for the extended period. Propane gas will be an essential item as it is needed to operate the stoves which have been assigned to the welfare area for the preparation of food and drink.

Feeding

This unit has been provided with survival biscuits for 100 staff for 24 hours and a coffee, sugar and cream mixture for approximately 1,000 cups of beverage. Before the end of one day, the Welfare Service will have to be on the job with more substantial food and drink.

In order for the Welfare personnel to do a proper job, each unit has two hotplates fired by propane gas, six stockpots and two ladles. There is sufficient gas in the tank to maintain the unit for two days.

Training

Emergency Health Services are releasing to the provinces Advanced Treatment Centre Training Units which contain the same material as the Operational Unit. However, the boxes in this training unit are different, as all material is packed in cleated plywood boxes for better protection and so that they may be used many times before having to be returned to stores for refurbishing and replenishing.

The Advanced Treatment Centre Operational Manual completely outlines the training procedures that Advanced Treatment Centre personnel would have to follow and the training unit is supplied so that this may be carried out.

Conclusion

Emergency Health Services, Department of National Health and Welfare have atempted to give to the provinces a forward Medical Unit which is capable of sorting and preparing casualties for transfer to the existing and emergency hospitals in the third echelon of treatment. Also, the supplies and equipment have been prepared so that they can be strategically located throughout the provinces in a relatively short distance from the site of disaster and the boxes are so marked and designated that they may be rapidly issued and used without delay. ●

QUEBEC MINISTER OF HEALTH ACTIVE IN EMERGENCY HOSPITAL EXERCISE—The Honourable Alphonse Couturier, Minister of Health for the Province of Quebec (right), assists during a hospital exercise at the St. Joseph Hospital, Riviere-du-Loup. Here, as physician in the sorting department, he examines a simulated casualty. The exercise followed a hospital disaster institute which brought together representatives of all hospitals from St. Jean Port Joli to Gaspe and included the hospial from Iles-de-la-Madeleine.

SASKATCHEWAN MINISTER ADDRESSES EMO CONFERENCE

During a conference of municipal emergency planners from about twenty-five Saskatchewan communities at Fort Qu'Appelle, October 22-24, 1964, the following address was delivered by the HONOURABLE D. T. MCFARLANE, *Minister of Municipal Affairs:*

FIRST OF ALL, I must extend Premier Thatcher's apologies for not being able to attend today. As I am sure you are aware, he is an extremely busy man right now and, although he would have liked to meet you today, he found it impossible to be here.

Since you are essentially municipal men, Mr. Thatcher asked me to stand in his stead as your interests and problems are also mine.

Before I go further, I would like to pay tribute to you and to the people in the civil defence movement whom you represent. You have a most difficult job to do.

Public apathy and inertia have proven to be the major difficulty in emergency planning work. People have a natural tendency to avoid unpleasant things and it must be admitted that the thought of either a nuclear holocaust or a natural disaster is a frightening matter to contemplate. Rather than face the fact that the possibility of disaster is always with us, our citizens prefer not to think about it. This makes yours a most difficult job.

However, I urge you not to take this apparent apathy as unconcern. The public is very much concerned and, when our people do think about your work, they come to the conclusion they must rely on you.

It is my hope that you gentlemen do not despair but, realizing the tremendous responsibility your fellow citizens have placed on your shoulders, you continue to work, to plan, to organize and to try to keep your programs before the people.

The amount of work done by our civil defence people in the face of public apathy is a continual source of amazement.

We have emergency communications systems, drugs and clothing stockpiles, reports on food, drug, clothing and petroleum supplies and organizations set up for rationing and price controls in the event of disaster.

Hon. D. T. McFarlane

It is a shocking thing to realize that a major disaster has struck Canada on an average of more than once every two years since the turn of the century.

Over five thousand people have died in disasters in those sixty-odd years—in fires, floods, explosions or other disasters.

Despite those figures, our people still tend to ignore emergency preparations.

Now let us turn to the provincial scene and, of course, the first thing that must be said is how greatly John Probe will be missed in this particular field of government. One of the earliest appointees in the provincial emergency measures field, he was a man dedicated to his job and one to whom much of the credit for our present position must be given.

As you all are aware, a joint statement of agreement on the division of responsibilities in preparation for emergencies or disasters was drawn up several years ago by the Federal government.

While the previous government of Saskatchewan accepted that statement in principle, it did not in the many years since actually sign the agreement.

Your new government does not intend to take the responsibility of the future of our citizens in a lackadaisical manner. It is far too important a matter to be shrugged off. Serious consideration must be given to our place in the total picture of national emergency planning.

It is our hope to name a replacement for Mr. Probe as quickly as possible. When the new director is familiarized with his office, we would hope that intense study would be given to our position, our facilities and our future needs.

When that review is completed, effective government action to fill the gaps in our preparations for any disaster must follow. The time has long since passed when government can go through the motions—simply appointing people, giving their recommendations little notice and then filing away suggestions for action.

As you know, Saskatchewan has not been designated as a target area in the event of nuclear war. The role of emergency measures and civil defence in this province has been set out mainly as one of a reception area and one providing mobile support.

This, in itself, is an extremely important role for our province—a role that we must be prepared to fulfill in the best possible way.

However, other possibilities must be considered in our thinking. We must never forget that our emergency measures planning is not designed solely for warfare. There are also natural disasters and we must be prepared to meet them should they arise.

But, even in warfare preparations, one simply cannot ignore the possibility of nuclear explosions within our own province. Military planners may envisage missiles speeding to important targets and ignoring the smaller, non-industrialized cities.

—concluded on page 15

VOLUNTEERS AND VOLUNTARY ORGANIZATIONS IN CIVILIAN DEFENSE PREPAREDNESS

EDITOR'S NOTE:

Earlier this year the Department of Sociology, Cornell University, prepared a survey study on "The Use of Volunteers and Voluntary Organizations in Civilian Defense and Preparedness". The study was exploratory in nature, designed primarily to further define the use of volunteers in civil defense. The research is a part of the total effort which is studying attitudes, levels of knowledge, social action processes, local decision-making and communication effectiveness.

The five-part volume deals with social conditions which give rise to voluntary organizations and the goals and typical structure of voluntary organizations in American society; findings from field studies of five communities in two Midwestern states; mail survey comparisons between community leaders and local civil defense directors; survey of local directors comparing paid versus volunteer directors; and concrete recommendations deriving from both the empiracal data and the survey of literature.

The following are excerpts from the Summary of Conclusions of the Report and the Summary of Major Recommendations.

IN GENERAL, our impression is that primary reliance on voluntarism is unlikely, at this time, to promote maximum effectiveness in either the conduct or the interpretation of civil defense at the local community level. The available survey data on voluntary participation in civil defense over a twenty year period show quite clearly that state willingness to participate in civil defense activities declined sharply from 1941 to 1961, with a temporary upsurge during the Korean war. These data suggest further that the social composition of civil defense volunteer groups has transformed it, during the same period, from a white-collar, middle class "community service" organization, functioning with equal affectiveness in towns and cities of all sizes, to a program dominated by blue-collar volunteers and paid government employees, tending to function effectively only in large metropolitan areas. And finally, recent surveys indicate that favorableness toward the current core of civil defense policy, the fallout shelter program, is greatest among those groups in the population which the literature on voluntarism shows to be least likely to participate in voluntary organizations.

From this, it is reasonable to infer that the educated white-collar middle class, which in America typically provides the consistently reliable nucleus of community service programs and organizations, has pulled away from civil defense, to be replaced by, in some areas, a virtual vacuum, in others by persons peripheral to the community's decision-making centers. If this is so, a further inference is that civil defense as a community activity has lost both salience and prestige. Since there is much evidence in the literature on voluntarism to suggest that a prime motive for participating in voluntary organizations is the desire for upward social mobility, a low-prestige program is in a poor position to compete for a stable corps of conscientious volunteers at the local community level, particularly in the absence of a clearly perceived need for the program.

Our summary interpretation of the literature on voluntary organizations, as it applies to civil defense, is, briefly, that in the absence of clear and present danger, civil defense as a voluntary organization confronts the dilemma indigenous to any national program for which the need is only sporadically apparent locally. Reliance upon volunteers for staffing such a program results in unevenness in both the level of participation and the quality of task performance, since tasks must be justified to most volunteers in terms of ultimate goals, and the goals must be sufficiently compelling to attract and hold volunteers, in the first instance. After World War II and after Korea, it was unlikely that civil defense volunteers could be retained, in the absence of a statement of highly salient new goals. Currently, civilian protection against nuclear attack doubtless represents such a goal for many volunteers. But the attractiveness of that goal, and the need for voluntary activity to attain it, have been seriously questioned in the mass media and elsewhere; hence, a marked disposition among the laity to render unto Caesar (i.e., the federal government) total responsibility for the entire civil defense effort.

A further obstacle to effective administration of civil defense as a chiefly voluntary organization resides in the hard fact that if local programs are to carry out national policy on a uniform basis, they cannot use volunteers as decision-makers, but only as rank and file. This built-in constraint may render the program uninteresting to local activitists accustomed to exerting substantial influence on organization policy. The organization may therefore be left in the hands of persons who are "assigned (by local government, for example), in which case they are not true volunteers, and the problem becomes one of persuading local governments of the program's validity; or of persons who participate because they feel a threat not felt by most of the community, in which case the program assumes a "fringe" or "social movement" character, with subsequent loss of prestige.

Our own empirical data, although by no means conclusive, tend by and large to support the above gen-

eralizations. As detailed in Section II, extensive interviews with selected members of "The Establishment" in five widely varying communities show these local leaders to be, with rare exceptions, inactive in civil defense, ill-informed about its program, and dubious with respect to its objectives as they perceive them. The general attitude toward fallout shelters was negative, although seldom aggressively so; the tone was, rather, one of indifference—a disinclination to be "bothered". We found that the question of need for a strong shelter program has not been answered to the satisfaction of the majority of our respondents (nor can it be, in any conclusive way). Second in importance, for these community leaders, is the problem of cost, whether privately or publicly defrayed; and closely related in the third major reservation, adequacy of construction specifications, or know-how. We explored correlates of these and other general shelter attitudes in considerable detail, but in this introductory chapter, we shall merely summarize our interpretations of this analysis, as follows:

1. If cost and know-how criticisms could be adequately met, it is likely that much of the negativism we encountered would be vitiated.

2. Appeals for a strong shelter program which are based largely on considerations of sheer personal survival may be missing the mark, and might even boomerang. It appears likely that discussion of the need for a shelter program would have greater impact upon this group-minded segment of society, if civil defense were presented more clearly and precisely in the broad context of overall Cold War strategy and objectives.

3. Since those respondents most likely to predict eventual nuclear war are also most likely to repudiate the shelter program, the so-called "scarce" approach to the need for shelters may be mustering negative rather than positive attitudes toward the program.

4. Apathy, rather than outright hostility, appears to be the prevailing attitude toward shelters, among these community elites. Thus, while it is doubtful that, in the absence of a concrete emergency, many of these leaders could be persuaded to take an active part in civil defense, it seems equally doubtful that serious resistance would greet a solidly administered, clearly interpreted program.

We found that these community leaders are on the whole more favorably disposed toward their local civil defense programs than they are toward the federal program as they define it. While it is true that civil defense at all administrative levels has always maintained a dual responsibility for both natural and man-made disasters, including armed enemy attack, this fact seems all but unknown to the local leaders we interviewed. A strong federal emphasis in recent years on the fallout shelter program appears to have come across as an exclusive emphasis, with the consequence that many community leaders make a distinction between the federal program on the one hand, and the local program on the other. Generally speaking, we found that where the local program has maintained a natural disaster emphasis, or an emphasis on man-made disasters not associated with enemy attack, it is supported by the community leadership group. Where, on the other hand, the local program is identified with the federal fallout shelter program, it tends to be regarded with indifference or impatience.

It should be noted that this federal-local program distinction was made not by the researchers but by the respondents, who appeared, on the whole, more confused than condemning. This confusion is reflected in our finding that even though the civil defense program at the federal level tends to be misperceived, civil defense is nevertheless felt by a plurality of our respondents to be a federal responsibility. From this finding; from our findings with respect to shelter attitudes; and from our detailed examination of the five local civil defense programs in actual operation, we have arrived at these tentative conclusions:

1. The federal fallout shelter program may have been both undersold and oversold: undersold in the sense that its relationship to overall Cold War strategy has been made insufficiently clear, and problems of cost and construction appear unresolved; oversold in that it has come to be seen as the exclusive focus of the federal agency, so that general disaster functions are perceived as an essentially local emphasis.

2. In non-crisis periods, or in non-disaster areas, crisis and disaster oriented programs experience profound difficulty in enlisting that sustained support from community leaders and decision makers which seems necessary to the continuous and efficient operation of civil defense as a volunteer-based program. Even though the leaders we interviewed were inclined to express preference for a natural disaster civil defense orientation, we doubt that the recent OCD shift to a more balanced emphasis will alone guarantee the development of a continuously functioning, reasonably uniform federal-local program.

3. Civil defense volunteers in the communities we visited tended to come largely from voluntary organizations on the periphery of the power structure, or from city government personnel who are not, strictly speaking, volunteers. Thus, civil defense tends frequently to be regarded as a "fringe" operation, lacking solid integration into the total life of the community.

4. Where civil defense is formally incorporated into local government, it seems to fare slightly better than where this is not the case. But it was our impression that local government officials are reluctant to place the program high on the priority list, because of what they regard as excessive cost relative to articulate public demand.

5. A civil defense program which assumes, as it must, the possibility of armed enemy attack using nuclear weapons, is by definition a national, not a local program. To the degree, therefore, that the shelter program is a central objective, the federal

agency cannot rely upon volunteers or quasi-volunteers, who must be recruited in the context of a local leadership climate which tends to remain indifferent to the catstrophe until it actually appears or is seriously threatened.

Our community studies gave us the further impression that part of the problem of civil defense at the local level resides in a failure of communication between opinion leaders and civil defense personnel. Since, in the first instance, local directors are the principal purveyors and interpreters of the civil defense program, their efforts to persuade their local "publics" of the need for such a program might be materially hampered by difficulties in assorting on a reasonably equal basis with key members of the power elite, through whom messages of comunity-wide significance are frequently filtered. If, for example, there are marked differences in social background characteristics, or in attitudes on critical issues whether or not related to civil defense, barriers to communication might arise that have little to do with the intrinsic merits or demerits of the program itself.

We therefore compared questionnaire responses of our five-city sample of community leaders with those of our three-state sample of local directors, and these findings are reported in Section III. To summarize briefly, our evidence suggests that where civil defense places primary responsibility on uncompensated non-professionals for administering local programs, difficulties in communication with the established leaders may indeed ensue, arising from the following kinds of disparities:

1. Differences in education of both the formal and informal variety, with community leaders the more "cosmopolitan", civil defense directors the more "parochial".

2. Differences in patterns of participation in local voluntary organizations, together with differences in motives for such participation.

3. Differences in orientation to critical national and international issues, with community leaders the more pragmatic and cognitive, civil defense directors the more idiological and moralistic.

4. Differences in perception of the Communist threat, both at home and abroad, and of the threat of large-scale war, at least in the foreseeable future.

The data presented in Section IV suggest that these differences tend to be minimized, where local programs are administered by civil defense professionals, whose backgrounds, experiences, and social attitudes more closely approximate those of the community leaders with whom they must communicate. On the basis of comparisons within our three-state sample of local directors, we found that full-time paid professionals, whose previous occupations were white collar rather than blue collar, and who have had volunteer experience prior to assuming their present civil defense positions, are by far the more successful in the conduct of their local programs.

Without recapitulating here our actual findings, we suggest, on the basis of this preliminary evidence, that the paid professional's superior effectiveness may be due in part to his more pragmatic, less ideological orientation toward his program; to his greater skills in the area of community participation and organization; to his higher level of formal education; to his white collar, middle class occupational background; and to his more "complex" and "cosmopolitan" view of socio-political reality. We suggest conversely that the *volunteer* local director may be motivated by considerations which are at best peripheral to the program's central goals and tasks, and which at worst lend to the program an aura of overzealousness and exaggerated emotionalism.

Our overall recommendation, then, presented in Section V in the form of concrete organizational alternatives, is that the Office of Civil Defense modify its present administrative procedures in such a way that (a) local directors themselves are "professionalized", in areas where this is financially feasible; and (b) professional coordinators under state or federal auspices are provided in areas which cannot support full time directors at the local level. We recommend further that key members of the established leadership groups in local communities be formally incorporated into the program in a chiefly advisory capacity, so that they may be continuously informed of federal policy and help to modify it in accordance with local needs and conditions."

Recommendations

The recommendations presented are based on original findings and a review of specific literature. Prior to specific recommendations and following the general background is a brief discourse on civil defense organizations at the local level. The report states "Before turning to our recommendations regarding the local organization of civil defense, we should note one important finding with respect to program goals: A broadened civil defense focus which includes all emergency situations, from localized natural disasters to national attack situations, appears essential to any general public acceptance of civil defense. As we pointed out in Section II, community leaders see fire, flood, tank car explosions, mine cave-ins, tordnadoes, and the like, as very real hazards; and they recognize that the ordinary fire and police services are inadequate to cope with such extraordinary events. But the possibility of nuclear attack is remote—or so distasteful as to be unthinkable—and exclusive CD focus upon that contingency has undoubtedly sabotaged efforts to effect even a minimally adequate emergency system. In any event, to create an emergency system designed only to cope with nuclear attack (or fallout from our own anti-missile missiles) is tantamount to digging a cellar when you need the whole house. The fact is that local emergency preparedness of any kind is virtually non-existent in most areas: and radioactive

fallout is only one of many emergencies which cannot be handled by means of existing community facilities. A program designed to cope with any emergency, whether caused by natural or human forces, seems to us the more reasonable approach, in terms both of providing responsible public service and avoiding public repudiation."

The specific recommendations are:

1. "Continue to encourage the creation of full-time paid directorships, filling these posts with college-trained individuals who have had prior experience in government and in civil defense."

2. "Employ counties and metropolitan areas as local administrative units. This units embrace both the urban and rural portions of a geographic area, and incorporate all contiguous units for the most efficient use of funds, without extending beyond locally recognized political and socio-economic boundaries. County organization prevents the proliferation of local volunteer directors in small municipalities which cannot afford even part-time pay for a civil defense director."

3. "Create a corps of federal civil defense specialists to serve as a field staff. These men would train local directors on the job; provide continuing supervision and direction for local officials in line with Federal policy objectives; and serve as a source of valid and reliable information for local directors and the community at large regarding civil defense policy and rationale. The Federal field staff should also constitute liaison between the Federal office and the state civil defense units, and work in harmony with state policies."

4. "Establish local (County) emergency co-ordinating boards, to be composed of government officials responsible for tasks relevant to emergency recovery, and with the addition of community leaders holding positions crucial to such recovery. The role-status positions should be the following, for these local boards.

Public

—county supervisor and city mayors
—county sheriff and city police chiefs
—county and city fire-fighting officials
—county and city public health officials
—county and city public welfare officials
—county and city school officials
—county and city public housing officials

Private Welfare

—area Red Cross executive and local board chairmen
—area Salvation Army officials
—hospital emergency coordinators or advisors
—officials of any other private emergency groups

Private Business

—area Chamber of Commerce representatives
—area bank presidents
—area mass media executives
—area telephone and utility company officials
—officials of major transportation firms
—Officials of food-distributing firms
—area labor organization officials

The county civil defense director would of course be an ex-officio member of this board, which would probably need to meet only a few times a year. In general terms, its functions would be:

(1) To co-ordinate existing emergency plans and exchange information regarding facilities on a regular basis, so that plans to share facilities can be developed, duplication of services can be avoided and gaps in services and facilities can be discovered and filled.

(2) To provide a channel for the dissemination of information and model program guidelines from the Federal office.

5. "Continue the use of voluntary organizations and individual volunteers as adjuncts to co-ordinating boards and paid staff, but encourage the broadest possible base of voluntary support. Current us eof volunteers and voluntary organizations should be continuously evaluated, preferably by Federal field persons, so that complete identification of civil defense with a single organization or category of organizations is avoided. For example, in some areas, identification of civil defense with paramilitary organizations like the American Legion has resulted in informal control of local programs by that organization rather than by elected officials."

The objectives of the foregoing recommendations are directed towards the fulfillment of the following:

"(1) The establishment of continuing and coordinated programs of emergency preparedness within local areas, with a view to maximizing the ability of these areas to cope with emergencies of varying magnitude.

(2) The creation of ties between local emergency programs and outside units, which can assist the local groups in meeting emergencies efficiently by making all local units a part of the larger system of emergency preparedness planning.

(3) The improvement and extension of local support for emergency preparedness programs, by providing more complete facilities and a tighter, more uniform organization.

(4) The involvement of core community leadership in creating and expanding the emergency preparedness system. Crucial to this involvement is personal (not press-release) dissemination of the most recent and reliable information to community leaders and mass media outlets—preferably by means of a cooperative alliance between Federal specialist and local director.

(5) The creation of a civil defense image which does not identify the program with special political interests not relevant to CD objectives. Deflection of agency purposes in many local areas has frequently followed from excessive enthusiasm on the part of a small local minority, at the cost of broad public support (the Street Corner Evangelist syndrome). Broad support is best obtained by refocussing on essentials and broadening the base of local involvement to include the Establishment as well as the Aspiring.

(6) The preservation of maximum democratic local control in emergency situations of all kinds." ●

SWEDISH CIVIL DEFENCE ORGANIZATION—Part II

EDITOR'S NOTE: This is the second of a two-part article. The previous section appeared in the October 1964 edition.

Alarm Devices in Centres with over 1,000 Inhabitants

In the event of war-risk and when there is a threat of air attack or radioactive fall out or layers of gas, the public is warned with alarm signals with sirens and in certain cases by telephone, through communications in the radio or otherwise, e.g. through civil defence personnel. Outdoor alarms can as a rule be given in centres with more than 1,000 inhabitants.

Risk of war

In case of imminent risk of war alert alarm is given. The alarm implies, inter alia, that the civil defence system must enter a state of total preparedness.

Air attack

The aim is to be able to warn the public in such good time before an air attack that the people will have time to go to the shelters. The warning time may for centres nearest the direction of attack be estimated at 2-4 minutes. For centres situated farther off the time at disposal for warning the public is prolonged. The warning interval may, however, be shorter on account of meteorological factors, the quality of the personnel, the knocking out of radar stations or interference with the same etc. Furthermore, pre-warning cannot at present be counted on for certain kinds of rockets.

The alarm signals are triggered by the command of the local civil defence on the strength of orientation concerning the air situation from military air defence centres or on direct orders from such centres.

Black-Out and Camouflage

It is incumbent upon every house-owner to undertake measures for black-out of plants and buildings. This also implies the obligation to procure and fit materials to cover windows etc. When orders are given for black-out the tenant must put up the material.

In certain cases the camouflage of plants or buildings may be enjoined.

Special regulations apply for the putting out of outdoor lighting in states of emergency and war, for the screening of lights on vehicles, ship's lanterns, lighthouses etc. and for the arrangement of lighting for the guidance of traffic, marking lights and painting for marking purposes.

Civil Defence in Centres with over 5,000 Inhabitants

The main tasks of civil defence are to direct evacuation and to rescue survivors after an attack.

Civil defence is to a large extent dependent on local supplies of personnel and materials. It chief task is to give speedy help to the centre for whose protection it is mainly intended. It is organized in principle for centres with more than 5,000 inhabitants.

The size of the organization for relief work is estimated on the basis of the reduced relief requirements that may arise after the carrying out of emergency evacuation, mobilization and re-location. The stipulation in this connection is that it shall be possible to perform the rescue work within 24 hours after attack.

Protected places for the grouping of units

The main principle for the grouping of the units is that they shall have a suitable starting point for their expected activities and at the same time—as far as this is possible—be protected from the effects of attack of probable targets.

The need for protection is met in the first place by locating the units at a reasonable distance from targets for attack. If on account of their tasks units must be stationed in or in the immediate vicinity of a target, special protection is arranged. The closer the location of the unit to the centre of the target, the more stringent are the demands for protection. Thus in certain cases it is stipulated that the unit must be located in a rock-solid shelter.

In the state of complete civil defence preparedness the personnel must be constantly available. Practically the entire personnel will be called on for service and located at the respective grouping points.

Personnel in relief units are placed at base stations and personnel in control centres in or at the respective centre. Personnel for round-the-clock guard duties are stationed at the objects to be protected.

For evacuation stations, relief centres, and other grouping locations for evacuation and billeting organs there are no unconditional requirements as regards protection.

For other grouping points, which must be situated in or in the immediate vicinity of built-up areas with shelters, shelters are in principle stipulated for personnel. The stipulation may vary from standard shelters with the lower protection value—0.5 atmospheric gauge —to rock-solid shelters, according to the character of the area and the situation of the grouping point.

Since it must as far as circumstances permit be possible to exercise the command function from the control centres, special demands are made with respect to the protection of these. The principles observed in this connection are the following. For built-up areas with more than 30,000 inhabitants and as a rule for such areas with 10,000-30,000 inhabitants the control centres are to be situated in rock-solid constructions.

Control premises and base stations are as a rule grouped in the vicinity of the principal centre of the

civil defence area, district or municipality within specially indicated grouping areas. The extent of these latter will vary according to the number of inhabitants in the centres in question.

In order to expedite the rescue work after an attack, a number of rescue and fire-fighting units are as a rule grouped within the boundaries of centres with more than 30,000 inhabitants. These units must also serve as contact organs between the civil defence controller, the public and the plant protection. The units in advanced positions are stationed in shelters.

The Civil Defence and the Armed Forces Assist Each Other

For the total defence to have as great an effect as possible, collaboration between the different parts is required. Not least important in this connection is that the civil defence and the armed forces should work hand in glove. The main lines of the military and civil war planning are coordinated already in peace-time. Collaboration in war-time is firmly established in different instances, viz., between the Civil Defence Administration and headquarters, the civil defence coordinator and the military commander-in-chief and the provincial government and the commander of the defence area.

On the local plane the civil defence controller should as a rule collaborate with a military officer appointed by the commander of the defence area in concert with the provincial government.

If it is absolutely necessary for the coordination of the activities of the armed forces and the civil defence, military officers—who must be at least battalion commanders—may, in the highest state of civil defence preparedness, give the civil defence authorities instructions as to the direction of the activity in a certain situation. This military prerogative may be exercised e.g. in an area affected by military operations, in order to ensure the freedom of movement of the military units. The instructions may for instance refer to times and choice of route for evacuations concerning which decisions have been taken by a civil authority.

Civil defence and military units must give each other mutual assistance where this is possible without prejudicing their own tasks.

Military aid to the civil defence may be given in all its branches in the form of personnel, equipment, material and necessities. On account of their equipment, training and the similarity of their functions, some military units are particularly suited to assist units from the civil defence. Such are engineering, pioneer, protection, communications, first aid, field police and maintenance units. Military assistance is chiefly required as reinforcement for rescue, fire-fighting and first-aid activities, but may also be needed for evacuation, communications, regulation of traffic and the maintenance of order, as well as for the distribution of food and the preliminary billeting of the homeless or of refugees. For simpler tasks other field and local defence units, as well as the Home Guard may come into the question.

The civil defence may count on more considerable military assistance only in a situation in which the combined total defence must be directed towards mitigating the damaging effects of air attack. If military operations on land have been started or if there is imminent risk of invasion, the armed forces possibilities of rendering assistance are reduced. The situation may then require that the civil defence assist military units with e.g. telecommunications, the extinguishing of fires and the rescue of persons shut up in collapsed buildings, first aid, the maintenance of order and guard duties. Also in other situations the civil defence may assist the military defence, e.g. by supplementing the communications system of the armed forces with information concerning the landing of enemy air-borne troops, the occurrence of fall out or poison gas etc.

The ABC-Protection Includes Both Preventive and Relief Measures

A number of measures are required for the protection against radiation from fall-out over large surfaces which under certain circumstances may arise as a result of a nuclear explosion.

The standard shelters give good protection by reducing the radiation to about 1/1000 of the outdoor radiation.

Serious problems will arise in smaller centres and in the countryside, where there is no protection of the kind here mentioned.

The government may make it incumbent upon house-owners, who have not got standard shelters, to arrange for a reasonable protection against radiation in their apartment houses in states of emergency and war both for those normally living there and those who may be expected to be billeted there. Further, it may even in peace-time be made incumbent upon the house-owners to undertake certain preparations to be in a position to provide such protection. The measures may consist in the procuring of earth, sand, bricks or other heavy material, sacks for the storing of earth and sand, and timber for supporting and carrying purposes. The civil defence administration has worked out instructions, which should ensure a reduction of the radiation to about 1/100 of the outdoor effect.

Communications to the public concerning radioactivity are based on information processed at special predicting centres. Such centres are established in localities used jointly by military and civil regional authorities, e.g. by General Officers Commanidng and Civil Defence Coordinators and by Military District Commanders and provincial governments. The civil defence controller has at his control centre experts whose task it is to provide him with information concerning, inter alia, protection against radioactivity.

As a basis for actions the predicting centres receive upper-wind prognoses from the meteorological service and data concerning the actual nuclear explosion from

so-called permanent measuring stations. A network of such stations is established by, amongst others, the air intelligence units of the air force and the civil defence. Supplementary measurements are carried out by the mobile indication groups of the civil defence and in certain cases with indications collected by aeroplane.

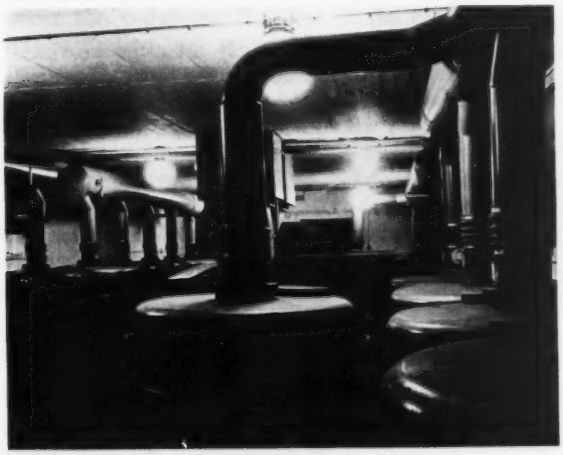
The first summary warnings are based upon the so-called radioactivity prognosis. On the strength of this, orders about "protection against radioactivity" are given for immediately threatened areas and "radioactivity alert" for areas that may be expected to be affected later. When a more detailed picture has been obtained of the extent and intensity of the fall-out more differentiated instructions and other measures may be based upon this. Evacuation of a part of a fall-out area may come into the question. Decisions in this matter are taken by the provincial government.

When the danger is over, "all clear" signals referring to radioactivity alert and radioactivity protection respectively will be given.

The communications concerning radioactivity are sent over the radio and the air-orientation transmitters. Orders are given locally regarding radioactivity protection by air alert.

Information an important part of B and C protection

All shelters are gas-proof. Special fan arrangements ensure fresh air and the air-inlets are provided with filters. The shelters thus afford good protection against noxious gases and biological weapons—substances spreading infection.

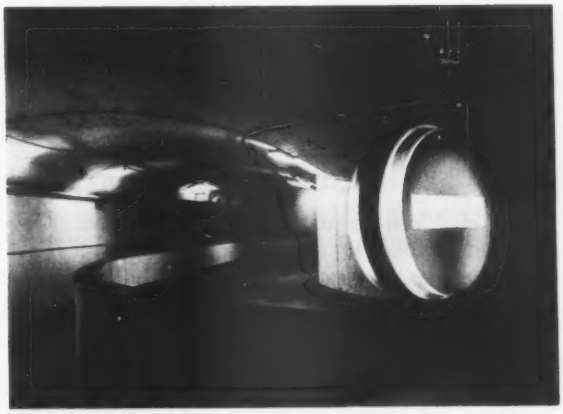


The "tins" are integral parts of the ventilation system and contain filters, where the air can be cleaned from war gases.

The personal protection is to a certain extent provided through gas-masks for the population stored by the civil defence and distributed in states of emergency or war in accordance with special regulations. In the units of the civil defence each person is supplied with, inter alia, gas-mask and atropine injector, the latter for self-injection in case of nerve-gas injury.

Where there is any suspicion of poison gas the measuring stations report this to the control centre and start indicating. This is supplemented with indication by the mobile indicating groups. These can ascertain the extent, type etc. of the noxious gas. ABC sections and ABC groups are trained to rid persons, animals, objects and ground areas from noxious gas. This activity is in the first place intended to pave the way for the rescue service and takes place in close collaboration with the latter.

An important link in the protection against biological and chemical weapons is information to the public concerning the preventive and relief measures possble for the individual himself.



The ramp to "P-Klara", one of the four largest rock-solid shelters (in peace-time used as a garage) in Stockholm.

Living in shelters

The civil defence reckons with the possibility that both fall out and attack with chemical and biological weapons may force the public to stay in shelters for a period of up to three days. If the coating or attack is repeated, the stay will of course be prolonged. This means that the shelters—as has already been mentioned—are so dimensioned that after an emergency evacuation they may serve as dwellings for those left behind.

The furnishing of standard shelters with sleeping accommodation (bunks, beds), simple furniture etc. that may be called for must be provided by the house-owner and the tenants on their own initiative. To the necessary equipment in the shelter belongs also a wireless receiving set—a battery radio. It is the business of the individual to take to the shelter personal equipment, including warm clothes and bedding as well as suitably packed provisions that will keep well. Persons referred to public shelters may count on these being provided by the authorities with certain furnishing and equipment for 'board and lodging', though personal effects must be brought by each individual.

The Provincial Government is the Enrolling Authority

The recruiting of personnel to the civil defence is based upon the civil defence obligation. This implies that it is incumbent upon every Swedish man and woman between the ages of 16 and 65 years to serve in the civil defence as long as health and physical strength permit of this. The civil defence duty applies already in peace-time.

In war-time and in states of emergency every person liable for civil defence duty may be called upon without time-limit for both training and service.

In peace-time a person enrolled in the civil defence must go through certain training. Further, it is incumbent upon all those liable for civil defence duties to take part in drills during a period of at least 60 hours per 3-year period. The Government may decide that a part of this period must be devoted to training.

The civil defence obligation applies also to military conscriptions, home guard troops and others who are liable for service in the armed forces, though with the reservation that civil defence service may not hinder military service.

The civil defence requirements for personnel are met from the following categories:

1. *Men who are past the age of liability for military service.*

2. *Men who have been exempted from military service.*

3. *Conscripts who have been granted a respite from service in the armed forces for war-location in civil defence.*

4. *Officers in the reserve who have been transferred from the armed forces to the civil defence.*

5. *Women who have not the care of children or invalid relatives, and women whose children have attained the age of 16 years.*

In addition to the above categories, a number of conscripts exempted from the bearing of arms may in war-time be assigned to the civil defence, and medical staff may within certain limits also be called upon.

The medical staff—doctors, dentists, veterinaries, chemists, nurses etc.—are placed at the disposal of the civil defence by the Royal Medical Board. The personnel in question are not enrolled. The service is according to the war-time allocation order issued by the Medical Board, and on the basis of the obligation for service incurred by medical personnel.

The general local civil defence consists, when the organization is in full strength, of—on the whole—the following personnel:

personnel with respite from military service	20,000
conscripts exempted from the bearing of arms	6,000
other male personnel	150,000
female personnel	44,000
	220,000

(+ 5,000 not enrolled in peace-time)

The group "other male personnel" is recruited when the persons in question are past the age of liability for military service. The women are recruited for the most part from the age-groups 26 and 38 years. An enrolled persons remains in the civil defence as long as he or she is considered to meet the physical and mental requirements connected with his or her duties, but not beyond the age of 65 years. The annual recruiting requirement is about 25,000 persons.

In plant protection units 10 to 18 per cent of those employed at the works may be enrolled, but at the most 350 persons. The demand for personnel for plant protection amounts to 60,000-70,000 persons.

The regional mobile columns are recruited from transferred military conscripts, and successively supplied with—in round numbers—10,000 conscripts aged 35 years. They must if possible have to take two refresher periods of drill in the civil defence. This means that those recruited to the Rescue Services are relatively young personnel with comparatively long training.

For officers' posts in both the local civil defence and the mobile columns at the most 750 officers in the reserve and about the same number of conscripts who have received NCO training are successively transferred from the armed forces. In connection with the transference the reserve officers relinquish their position in the armed forces and become officers employed by the civil defence.

The enrolment of personnel is performed by the provincial government except in states of emergency and war, when the civil defence controller is the enrolling authority.

Enrolment may be made only after the provincial Labour Board has confirmed that the proposed persons may be requisitioned by the civil defence. This stipulation is intended, amongst other things, to secure the defence recruiting of other civil authorities and to obviate the possibility of one person getting several incompatible tasks.

The war-time assignment is made only after the enrolled person has been trained for the post, unless he should already possess such professional knowledge and experience that no training is needed. This applies to, amongst others, professional personnel in the fire-brigades and the police force, and other technical personnel. In connection with war assignment each person receives a war-assignment order giving the place to which he is to report on mobilization. The provincial government keeps a record of enrolled personnel and reports the personnel to the provincial Labour Board.

The Officers are Trained at Boarding Schools

In peace-time an enrolled person may be called upon for training during a period of at most 60 days if he or she is to have a war assignment as a higher-ranking officer or a particularly qualified specialist,

otherwise for at most 30 days. This holds for the whole period during which the civil defence liability lasts.

In the great majority of cases the maximum periods are not used in practice. Thus the training period for lower-ranking officers is 1-2 weeks and for men 35-60 hours. The short training periods are as a rule due to the fact that persons with special professional or other qualifications are chosen for the posts.

A small category of personnel, viz., certain higher-ranking officers, may be required to undergo training for up to 80 days.

A conscript in a mobile column takes part in training and drill in the civil defence for as long a period as after his enrolment he would otherwise have served in the armed forces. This period is for conscript officers at the most 80 days and for others at the most 60 days. For employed officers the period of training is 320 days with deduction of the number of days the person is question has served as an officer in the military reserve.

At the State civil defence school at Rosersberg are training firstly the higher-ranking officers and secondly the personnel of the mobile columns. At a smaller number of field schools are trained chiefly the lower-ranking officers. The provincial government in the province in which the school is situated undertakes certain administrative tasks for the school. At all the schools the teaching is given as whole-time training and with the pupils boarded in hostels. The teaching is in the hands of whole-time and part-time civil defence teachers and instructors employed on a temporary basis.

The training of the privates is organized by provinces under the pedagogic direction of the Civil Defence Administration and under the administration of the provincial government. It is for the most part given in the form of part-time tuition at evening courses. The instructors are persons who have themselves received training for their duties at Rosersberg, and who are employed by the Civil Defence Administration under contract.

The practical drills, in which the knowledge gained during the training is applied, are organized chiefly by the provincial governments. The drills, which may refer to evacuation or to relief activities within a civil defence area, may take the form of games or practical exercises. Drills on a bigger scale may be arranged by the Civil Defence Administration.

Material to the Value of 700 Million Kronor

It is incumbent upon the municipalities to place such material belonging to them as well as other property at disposal as may be needed for the local civil defence. This applies in the first place to material belonging to the municipal fire-brigades. In so far as the material is needed for training and drills it must be placed at disposal even in peace-time. All other material for the general civil defence is procured by the State, except for motor vehicles, vessels and dogs which are for the most part only registered in peace and requisitioned in states of emergency and war.

The cost of the total material requirements has been assessed at about 70 million kronor (1961 price-index), of which material for about 500 million kronor remains to be purchased.

A comprehensive depot organization

The State-owned materials are distributed in central, provincial and municipal depots.

In every civil defence area there is a main depot. Here are kept mobilization equipment and replacement and reserve materials. Base-area depots are established in certain cases in civil defence areas with two or more base-areas. In such depots are stored mobilization equipments for personnel and untis that are to be equipped within the base-area.

In municipal depots, which should as far as possible be coordinated with State depots, is kept certain State-owned civil defence material, chiefly fire-fighting material. The municipality is responsible for the care and maintenance of the materials.

Personal and joint equipment for personnel that is to serve at command centres is as a rule stored in the centre in question.

Short Mobilization Time—24 Hours

The civil defence organization is mobilized by going into different stages of emergency. These are designated III, II and I.

The stage of emergency referred to as III, the lowest stage of preparedness, implies that personnel is kept called up to a limited extent, chiefly for command service and guard service and for training and drill. The material is to the requisite extent kept ready for use. For the rest, those emergency measures are adopted which for each special case may be determined by the Government.

Emergency stage II, the intermediate stage, implies that over and above what holds for III, such an emergency level is maintained that the transition to organization for war activities in all branches of service may be made without delay. Personnel is kept called up in the numbers prescribed by the Government for each particular case.

Emergency stage I, the highest stage, implies that both the civil defence and the plant protection units shall immediately be able to carry out their war functions.

The different stages of emergency are entered into after special dispensation of the Government on the strength of a proposal by the Civil Defence Administration after consultation with the commander-in-chief. Civil defence emergency may be ordered for only a part of the organization, e.g. for evacuation and billeting, or within only a certain part of the country. If the alert alarm is given, the highest stage of civil defence preparedness must be entered in immediately.

The following mobilization times are aimed at, viz., for relief units 24 hours, evacuation units 6 hours and guard units 4 hours. The mobilization time for the mobile columns is somewhat longer than 24 hours, since as a rule the personnel live farther away from their mobilization posts than is the case for personnel of the local civil defence.

The provincial governments plans the mobilization.

The mobilization location is, if possible, chosen close to the grouping location, which is also as a rule the point at which the personnel must report for duty and should allow of mustering and the handing out of equipment. Adjacent to the mobilization locations are established suitable delivery locations for those vehicles which are to be placed at the disposal of the civil defence by the owners in case at mobilization.

The Individual's Capacity for Self-Protection—A Foundation for the Civil Defence

The size of the civil defence organization has been determined on the assumption that without being enrolled every citizen will take part in the rescue activities. In a catastrophic situation the relatively small forces of the civil defence cannot go to the rescue of all those needing help. The people must to a great extent help themselves and each other—self-protection. The possibilities for this must be created in peace-time by instilling in the public elementary knowledge of basic principles as a basis for their actions. This is done through information and training.

The necessary enlightenment may be given through brochures, the press, radio, television etc. The brochure "If War Comes" is the basic text on self-protection.

Training in self-protection is voluntary and is not to be confused with civil defence training for enrolled personnel. Nor must a training in self-protection be used as a basis for recruiting to the organization of the civil defence.

The Civil Defence Administration has commissioned the Civil Defence Association, the Red Cross and the National Association of Fire Brigades to carry on training in self-protection in collaboration with the association "People and Defence". The three first-mentioned so-called head organizations are, in principle, to carry on the training each in their own respective special fields.

The training is given at courses arranged by the local or provincial organizations of the head organisations and under a certain superintendence by the provincial governments. The training is free of charge for the individual, and State grants are allowed towards the defraying of the costs for the courses at a certain amount per pupil and teaching hour. The plans for the courses include three courses, viz., personal protection (4 hrs.), care of accident cases (10 hrs.) and defence against fire (4 hrs.).

Research and Experiments are Constantly Being Carried On

The constant development of the means of attack means that protective measures must be kept up to date. Experiments and tests with new and better materials and equipment must be carried on all the time. Tests aiming at improved protective devices must be arranged without intermission. The activities of the civil defence, especially the relief work, can be made more effective with new forms for organization and tactics.

The main part of the technical-scientific research for the civil defence is carried on, commissioned by the Civil Defence Administration, at the Defence Research Institute and the Fortifications Administration. The research program includes, inter alia, measures for increasing the protective capacity of shelters against blast-waves, radioactivity and gas. Great attention is paid to instruments for radioactivity service, as also to materials and methods for the effectivization of protection against gas. An important sector refers to the testing of the most suitable tele-technical equipment for the command service.

Organization tests and tactical tests are carried on under the auspices of the Civil Defence Administration at different places in Sweden, often in conjunction with more important civil defence drills. Certain experiments can be arranged at the State civil defence school. The program includes chiefly the adaptation of equipment to the organization and practical studies of commanding in the field, behaviour of the units, maintenance service etc.

Comprehensive Voluntary Support

Several voluntary organizations support the civil defence in various ways. Sweden's Civil Defence Association, which is an amalgamation of the provincial associations, is the civil defence's own voluntary auxiliary organization. Affiliated to the Association are about 300 civil defence associations in the more populated centres.

The task of the organization is to promote the civil defence through propaganda and training activities. Its chief function is to convey information on self-protection to the public. This is done both through courses in personal protection and by other means, chiefly exhibitions.

The general enlightenment of the public, which aims at spreading information concerning civil defence and inspiring confidence in the same, is carried out with the help of the Association's periodical, which has an edition of about 15,000 and is issued 10 times per annum.

The National Association of Sweden's Women's CD Corps recruits female personnel for tasks chiefly in the evacuation organization. The National Association of Sweden's Women's Automobile Corps recruits and

—concluded on page 15

Swedish Civil Defence Conference—
Part II concluded

trains car-drivers chiefly for doctor's cars and the transport groups of the command service. The Swedish Red Cross supports the civil defence—apart from by self-protection activities—by recruiting sick-care personnel. The association "People and Defence" gives a good deal of space in its propaganda to civil defence and self-protection.

State grants are allowed towards defraying the costs of the voluntary activity.

The Cost of Building Up the Civil Defence: Over 900 Million Sw. Crowns

As has emerged from the foregoing, the civil defence activities in peacetime consist, for the most part, in the planning of evacuation and billeting, the building of shelters and the creation of the relief organization.

If we consider the costs of Swedish civil defence up to the end of the year 1959, when the final foundation stone for the new organization was laid, we find the following.

The biggest costs are those for the shelters. The standard shelters, which are paid for by the house-owners, are estimated to have cost in round numbers 200 million Sw. crowns. The public shelters, to the cost of which the State as a rule contributes two thirds and the municipalities one third, have cost in all about 183 million Sw. crowns.

As regards the equipment for the relief organization, this has cost the State, as from 1945, about 200 million Sw. crowns.

The planning of evacuation is the least costly measure and no definite amount can be given as an estimate.

If we add together the above-mentioned sums we arrive at the figure of 783 million kronor, which thus represents the total cost of the civil defence Sweden had in 1959. This civil defence was only to a restricted extent usable, due to several causes, e.g. technical developments.

If civil defence is to be built up as decided by the Riksdag in 1956 and 1959, the grants will have to be an average of 135 million Sw. crowns per annum for seven years at 1961 prices. The cost after the extension is estimated to be about 85 million Sw. crowns per annum of 1961 prices. ●

BOOK REVIEW

Strategy For Survival—THOMAS L. MARTIN and DONALD C. LATHAM

The University of Arizona Press 1963.

The aim of this book is to provide the public with guidance on civil defence matters. But it is much more than a guide. In fact it is a very useful document covering matters which are of concern to any person engaged in civil emergency planning.

It is an easy book to read and the authors have gone to great lengths to explain in considerable detail some of the fundamental problems associated with protective measures. It will probably not convince those who on emotional grounds are opposed to civil defence but for those who do want to understand the why's and wherefores of protection the book will go a long way to provide a better understanding of the nature of the problem and possible solutions to them.

One of the basic problems which confronts the planner is just what is he planning against. Too often reasoned assumptions on which the plan should be based are lacking because of rigidity of thought. The chapters devoted to the Principle of Targetting, Attacks on Missile Sites, Attacks on Cities will be of interest and help to those who are responsible for establishing the basic planning assumptions.

Although all the illustrations and examples in the book are based on United States situations the meat of the material is applicable to Canadians. ●

Saskatchewan Minister Addresses
EMO Conference—Concluded

But who is to say our province could not be chosen? Or who could guarantee there would be no accidental explosions in Saskatchewan?

Furthermore, it must be remembered Saskatchewan is considered the bread-basket of the world. It is also the location of a tremendous store of natural resources that would be urgently required both during actual warfare and in any post-war period.

One must remember that mass incineration has been a common means of warfare in times past and could be used again to destroy Saskatchewan's foodlands and forested regions.

In saying all this, I must hasten to state emphatically that I hope and I pray, as we all do, that none of this will come about and that present world conditions will continue to improve. While we are in no position to say such is the case, it would appear that tensions are lessening and that eventual peace might be more than just wishful thinking at the present time.

But nevertheless, we must be prepared to meet disaster, whether man-made or a result of nature's quirks.

To do so, we must consider all possibilities and lay plans for meeting any eventuality.

Our Boy Scouts have a motto that is most apt for civil defence work—"BE PREPARED".

And on that note, I leave you gentlemen to your considerations which I am sure will prove of great benefit in helping Saskatchewan to be prepared." ●

CIVIL DEFENCE IN NORWAY

Norway lies in an exposed position

Norway must be said to be a very important and in part a rather vulnerable area of the NATO defence line. Most liable to attack is supposed to be Northern Norway.

Total defence in Norway includes

—military defence
—civilian defence

Military defence

comprises the Army, the Navy and the Air Force. After January 1st, 1964, the compulsory period of service was reduced to 15 months in the Navy and the Air Force respectively, and to 12 months in the Army.

Civilian defence

comprises organized emergency measures for the preparedness of administration, health, wartime economics, information and the Civil Defence proper. The different duties have been delegated to several ministries. The coordination is regulated through a "Council for the Coordination of the Civilian preparedness".

Norwegian Civil Defence

was originally organized by the Air Defence Act of 1936. It was active during the German occupation 1940-1945. About 35,000 men have served during this first period. In 1948 the Civil Defence was re-organized and a Recovery Plan was drafted.

Today a Central Administration (CDCA) is in charge of the civil defence in Norway. The Ministry of Justice and Police presides over CDCA.

There are 4 regions and 133 local organisations of the CD in Norway.

The organization of Norwegian CD is characterised by the emphasizing of local organizations.

This is different from the system of some other NATO-countries, where mobile columns primarily are intended to cover larger regions. However, there are established mobile columns in Norway also, to a total of 14. These columns are first and foremost to be regarded as a supplement to the local relief forces.

For the year 1964, Parliament has granted Norwegian kroner 43,000,000,—or something like $5,000,000 for civil defence purposes in Norway. This means an annual cost of about 12 Norwegian kroner (or 12 shillings) per capita.

The budget for CD means 2.5% of the budget for military purposes, when these two are compared.

Chief Traits in Norwegian Civil Defence

Plans for Evacuation

We consider it probable that it might become urgent to undertake an evacuation from cities and other vulnerable areas. Quite elaborate plans have been worked out for the carrying out of this. Altogether preparations have been made for the evacuation of about 650,000 persons. The Government gives directions about evacuation, and those groups of the population that these directions concern are compelled to move.

Shelters

We have space for well over 600,000 persons in public and private shelters. All our shelters give protection against pressure. There is, in other words, no question of simple "fallout shelters" on which U.S.A. and some other countries base their civil defence policy. There are, however, no stocks of food and beverage in our shelters.

Private shelters are to be constructed in all new buildings exceeding a certain size. For all shelters there still remains important work to be done, such as the installation of ventilators and filters.

Service

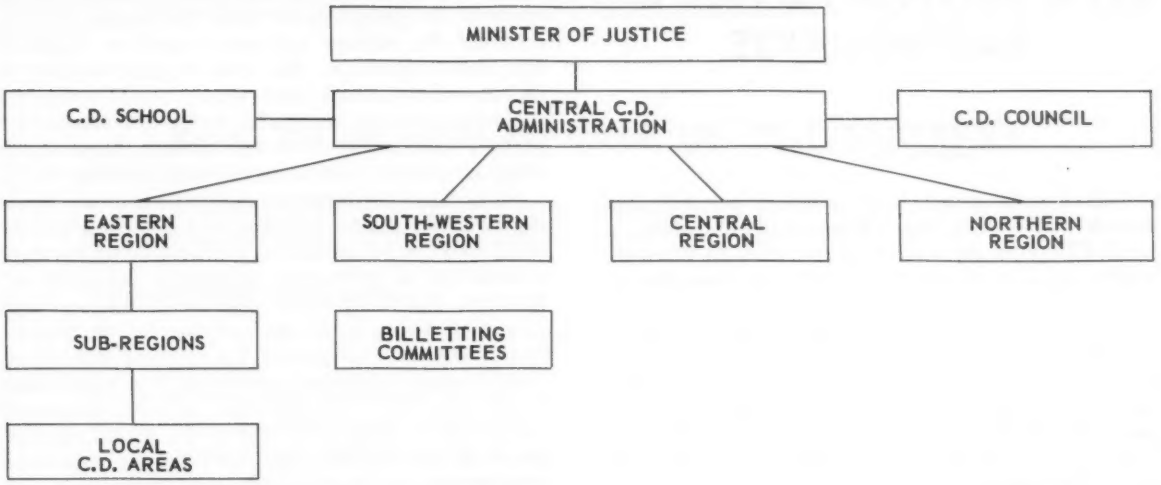
Women, as well as men, not mobilized in the armed forces, may be enlisted for duty in the CD. Just now (1964) about 150,000 persons serve in the Norwegian CD. From 1964 basic training for the relief forces will go on for two weeks. For the mobile columns, refresher courses will go on for 2 weeks every 4 years, and for the local relief forces, the refresher courses will be of 20 hours every third year.

Self Help

Norwegian Civil Defence emphasizes the importance of self help.

Duties imposed, like that of constructing private shelters, and that industries with more than 40 employees have the duty of taking civil defence measures, may be seen as features of the self help idea. In information campaigns, stress is laid upon the necessity of self help. 12 hours standard courses on first aid and fire fighting are given in co-operation with different humanitarian organizations. In 1963 about 6,000 school children were given special information, and one thousand pupils wrote compositions on self help subjects. ●

The Civil Defence Organization in Norway



The Central Civil Defence Administration in Norway

- Minister of Justice
- The Central Civil Defence Administration
- C.D. Director
- Section for Training
- Section for Administration and Budget
- Section for Building Facilities (shelters, control rooms etc)
- Section for Equipment
- Section for Planning
- Section for Public Information
- C.D. Chief Medical Officer
- ABC Adviser
- Section for Communications

The Organization of a Local Civil Defence Area in Norway

Equipment Store Room | Local Chief / Local Staff | Local C.D. Council

GENERAL PROTECTION

Personnel

- Local Relief Forces
- Fire
- Light Rescue
- Medical
- Heavy Rescue
- Police
- ABC
- Communication
- Supply
- Technical Repair
- Harbour Protection
- Evacuation Service
- Wardens in Public Shelters

Facilities

- Public Shelters
- Control Staff Room
- Forces' Alert Stations

SPECIAL PROTECTION (BUILDING AND SUBAREA)

Personnel

- Warden Service
- Industrial C.D.
- Railway C.D.

Facilities

- Private Shelters
- Warden Posts
- Special Facilities for Industrial and Railway C.D.

CIVIL DEFENCE ADVICE ON EARTHQUAKES

from
"International Civil Defence"
Geneva, Switzerland.

Following the severe tremors of February 17th and March 14th, 1964, the authorities is Obwalden, a small Canton in the mountains of central Switzerland, made a great many arrangements for the protection of the population in case of such disasters. Local Civil Defence organizations were entrusted with the execution of the measures provided for. In the Canton of Obwalden, which has a population of 23,135, all seven districts are obliged to have Civil Defence organizations. About 500 persons are active in Civil Defence, and trained leaders and specialists have received special instruction.

The first general regulations concerned the education of the public and special measures within the communities. The population was informed through the press of what was happening.

Furthermore, a sheet of instructions on "How to Behave in Case of Earthquake" was sent to every house. This list of instructions recommends precautions to be taken within each household, advises one how to behave in case of severe earthquakes, and tells how to proceed in reporting damage to buildings. Because of the original nature of this circular, we reproduce its translation in full at the end of this article.

Within the different communities, steps to be taken were divided among the fire department and the medical, technical and transportation services. The ensuring of the water supply, should normal supplies be interrupted, is particularly important. Therefore an independent system of hydrants had to be created. The medical service was organized in collaboration with the first-aiders and the doctors. The technical service was occupied especially with listing all available construction machinery and special equipment which could be used for clearing away rubble. Those in charge of the work of the transportation service would take care of providing transport vehicles to bring in rescue workers from outside the disaster area.

On a cantonal level, the first thing done was to set up a staff of important persons in public life, coming from different regions, who would ensure the functioning of communications. In this connection, direct telephone lines were established with Lucerne, instead of communications being relayed by the telephone office. Radio stations were also established by which the neighbouring canton could be contacted. As a rule, private sources, such as the civilian rescue service, made available small radio transmitters. In this way, the independence of the communities was to be guaranteed.

Other tasks were alloted to the cantonal Department of Public Works or the cantonal engineer. It was up to the Department of Public works to keep access roads to the danger zones clear. Furthermore, it was arranged that military helicopters could be requested from certain garrisons. The Swiss Federal Ministry of Defence also declared itself willing, should it become necessary, to supply troops for rescue operations; they would consist mainly of air-raid defence troops. Army transport vehicles would also be made available.

According to information received about the earthquakes in the Canton of Obwalden and the measures which have since been taken, Civil Defence leaders have stressed that all institutions approached were most cooperative. Again and again, spontaneous offers of help were even made. As to the behaviour of the population during the earthquakes, it was noted that unfortunately some newspaper reports did not shrink from exaggerating the actual situation, although in general the population behaved in a very disciplined way and peacefully pursued its daily tasks despite recurrence of earthquakes. Thus it could safely be assumed that even during a disaster of more serious proportions the population would meet the situation in just as calm and collected a way. ●

MISCONCEPTIONS AND FACT

Many misconceptions are used as arguments against Emergency Measures planning. Some of these misconceptions have even found their way into editorial comment.

MISCONCEPTION: Life would not be worth living following nuclear attack.

FACT: North America could survive a nuclear attack and recovery would be possible. A review of all available Canada/United States studies and nuclear test data indicate that food and water contamination would be a relatively minor problem. Food and water resources could sustain the survivors. Long-term biological effects from radiation would not be the major health problem. Ecological disturbances would not prevent recovery.

MISCONCEPTION: Water would be poisoned by radiation.

FACT: Radiation in itself does not affect water. Only if radioactive fallout particles from fallout get into water does it become dangerous. Water can be made safe to drink by filtering out the particles with paper, cloth or water softening device.

MISCONCEPTION: Food would be poisoned by radiation.

FACT: Radiation in itself does not poison food. When fallout particles stick to foods then the foods become contaminated. Peeling, wiping or washing will remove fallout particles. Food in cans and those covered by dust-tight wrappers such as polyethylene would be safe once fallout is removed from the container or wrapper.

MISCONCEPTION: People exposed to fallout are a danger to others.

FACT: Fallout is not contagious. However, a person having fallout particles on himself or his clothing would endanger himself and others until the particles were removed from his clothing by properly cleansing or discarding.

HOW TO BEHAVE IN CASE OF EARTHQUAKES

In addition to the safety measures now being prepared or already taken by the authorities, the following individual precautions are urgently ordered in the interest of everyone:

Precautionary Measures

1. At night put out all fires and turn off central heating. Keep a constant check on electrical installations.
2. In the home, keep a supply of drinking water constantly on hand.
3. Furnaces or fireplaces with cracks or fissures or with broken chimneys shall no longer be used.
4. A constant check shall be kept on damaged areas of buildings with regard to the danger of fire and of caving in, in case of a severe earthquake. In case of doubt, inform the local head of Civil Defence, who can arrange for a check to be made or for steps to be taken by specialists.
5. Fasten down or remove parts of buildings which have become loose, broken chimneys, loose shingles on roofs, etc.
6. Owners of houses shall inform the Town Hall immediately of homes which have already been evacuated or which are being evacuated.

How to Act in Case of Severe Earthquakes

1. In case of severe earthquake, stand immediately in the nearest doorway. Do not unthinkingly run out of the house, because immediately following the earthquake, parts of buildings may fall down.
2. After severe earthquakes, do not stand or move about in the immediate vicinity of buildings. When near a building, stay at a distance equal to at least half the height of the building.
3. Should a fire break out, first notify the Fire Department (Telephone No. 18) before starting to put out the fire. If telephone connections are interrupted, send a messenger to notify the Fire Chief or Fire officer.
4. Do not use the telephone for personal calls, so that it will be available for official calls to organize assistance.

Claims Regarding Damage to Buildings

The Town Hall may be informed in writing of all damage to buildings, but without giving details. These claims will in due time be examined and evaluated on the spot by the authorities. A decision as to whether state and community will contribute to the benefits paid by the Swiss insurance fund in case of natural disasters and as to how large such payments will be, cannot be made until the total amount of damage is known.

18 March 1964.

Government of the Canton Obwalden
and District Authorities.

PLEASE SAVE!

PRINCIPLES OF U.K. CIVIL DEFENCE CONTROL SYSTEM

Civil Defence authorities in the United Kingdom have been re-designing their system of control in order to give maximum authority to the lower echelons of government in the immediate post-attack period. The following article consists of extracts from the Civil Defence Circular No. 14/1964 which outlines the new system.

Civil Emergency planning U.K. is divided into a number of regions and subregions, each consisting of a number of counties and county boroughs (large urban areas) further subdivided as necessary. (This is indicated on the attached chart).

Control at County and County Borough Level

Local authority functions:

Local authorities should base their plans on the assumption that emergency legislation would allow the delegation of all the powers of the authority to a very small committee of, say, not more than three elected members. In addition, it is proposed that each county or county borough council should now nominate, subject to the approval in each case of the Secretary of State, a person to be the Controller in war. It is envisaged that in war the small emergency committee would act as long as circumstances permitted, but that circumstances might well arise in which the Controller would have no alternative but to act on his own initiative and would need to be empowered accordingly. He would account to the emergency committee for his activities in relation to local government functions as soon as it was feasible to do so.

Other functions

The Controller would also exercise such functions as might be delegated to him by the central government and would have powers to co-ordinate the exercise of central government and public utility functions at county and county borough level with those of the local authority, e.g. to determine priorities in the allocation of labour, material or transport.

It is suggested that, in general, the person best able to fill the position of Controller would normally be the Clerk of the County Council or the Town Clerk of the county borough concerned as the case may be.

Each county and county borough should also appoint an officer to assist the Controller in the conduct of civil defence life-saving operations in war. This officer, who would have the title of Assistant Controller (Operations), would hold a voluntary unpaid appointment in peacetime, but the appointment can of course be filled by an officer of the Council. As this officer would be responsible (inter alia) for the direction of operations of the Civil Defence Corps, there would be advantage in his becoming a member of the Civil Defence Corps though this need not be an absolute rule.

The control premises of local authorities should, ideally, be located in or immediately adjacent to their normal administrative offices.

Organization Within Counties

Because of the considerable variations in the size and population of existing administrative counties, there must necessarily be some variations in the control structure. Some counties will be able to deal direct with all their county districts in war both for life-saving purposes and during the subsequent survival period; others, because of their size and/or the number of county districts, will require the intermediate level of county sub-control.

County sub-controls

The primary purpose of county sub-controls is to facilitate the control of life-saving operations by the county control after attack, but since the communications to be provided at the county sub-controls might, in the survival as well as in the life-saving period, be the only means available for contact with county or sub-regional headquarters, there might well often be substantial advantages in locating and planning these sub-controls so that they could also play a part in the survival period. This is a matter for individual councils to consider; if they decide that the sub-controls should play such a role, it is also for them to consider what senior local authority officials and supporting staff are required for this purpose.

No firm rule can be laid down for determining whether a particular county does or does not need sub-controls; factors to be taken into account include the number and size of the county districts, the size and geographical configuration of the county, and its peacetime organization. In general, it is considered that where there are more than a dozen district controls there is a case for considering the introduction of county sub-controls and that a county sub-control should not normally deal with fewer than 6 or more than 12 district controls.

County Districts

County district councils, like county and county borough councils, should base their plans on the assumption that emergency legislation would allow the full powers of the district council to be delegated to a very small committee of not more than two or three elected members. There would also be a need for a Controller, who would be in the same position

in war in relation to the emergency committee of the district council as the Controller of a county or county borough in relation to the emergency committee of the county or county borough council. In addition, the Controller would undertake duties laid on him by the county council—for example, the control of life-saving operations—and would have powers to co-ordinate action at county district level. Consequently the Controller should be appointed by the district council in agreement with the county council. It is suggested that the person best fitted to fill the position of Controller would normally be the Town Clerk or Clerk of the Urban or Rural District Council, as the case may be.

The wartime control for any county district should normally be located at the district offices and would be used both for the direction of life-saving operations and for the discharge of the district council's functions during the subsequent survival period. The officers of the district council whose presence is essential for the discharge of functions in the survival period will consequently have to be stationed there, as well as the staff required for life-saving operations.

Because of the considerable variations in size and population between county districts, no standard size or establishment for district controls can be laid down. For life-saving purposes, there may be a need in the larger county districts (i.e. those comprising two or more sectors) for a civil defence headquarters manned by elements of the headquarters section and the Controller will require the help of an Assistant Controller (Operations). The life-saving organization required in the smaller county districts (i.e. those comprising one sector or less) would however be comparable to that of a single sector or less, in which case the staff required for assisting the Controller in the discharge of his life-saving functions could be drawn from the Warden Section—although this need not be an invariable rule where there are special circumstances.

Sharing of controls by county districts

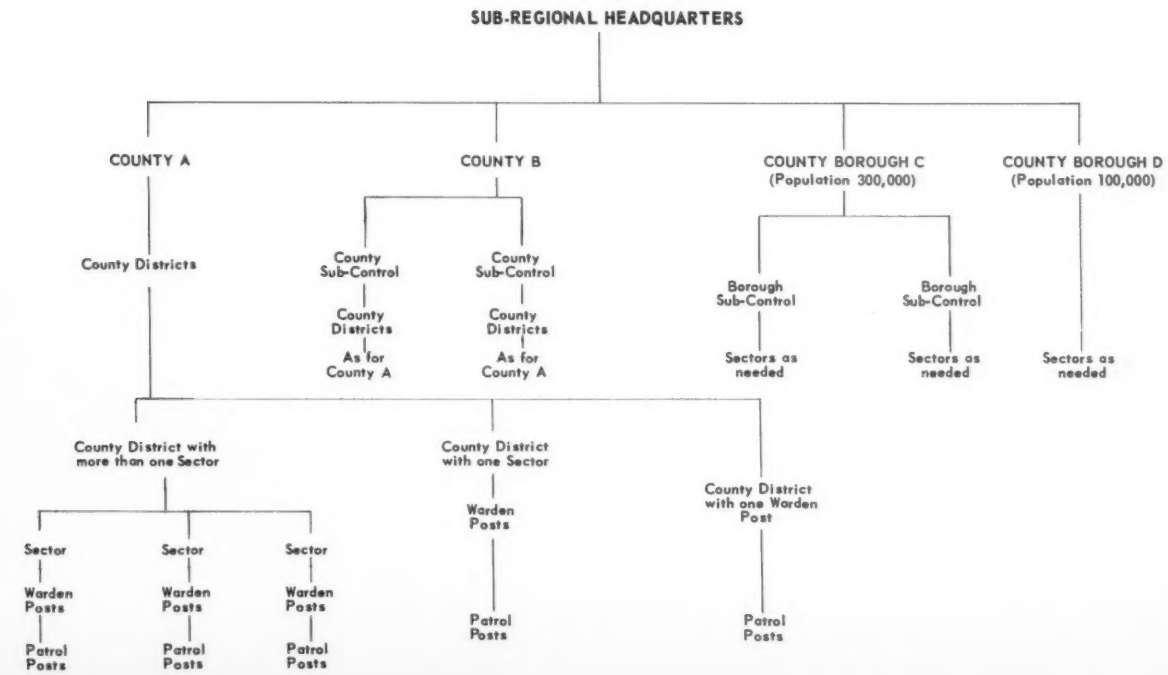
One reason for basing the control system on complete county districts is that the county districts have statutory responsibilities in their own right. But where two (or perhaps occasionally more) district councils have their peacetime administrative offices near each other—as often occurs, for example, where an urban district is completely surrounded by a rural district and the rural and urban district offices are both in the same town—there may often be advantage in their sharing a headquarters, at any rate for life-saving purposes.

Organization Within County Boroughs

In most county boroughs, the next level for life-saving purposes below the borough control will normally be sector. In the largest county boroughs, i.e. those with a population of 250,000 or more, some intermediate level of operational control may however be necessary. Where such controls are introduced, they should be described as county borough sub-controls, and it is suggested that they should be organized on the same lines as the county sub-controls described above.

UNITED KINGDOM REVISED CIVIL DEFENCE CONTROL SYSTEM

(for an imaginary Sub-Region)



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The Director, Editor, Officers and Staff
of the Emergency Measures Organization,
take this opportunity to wish Digest readers
and contributors all good wishes for
the New Year.